

Problem F

Food Rating

In the new food delivery app *Touch*, customers are able to rate the driver with integer scores from L to R inclusive. Drivers will get a bonus based on how high their average rating is. However, some drivers may abuse this system. A driver delivering food to 1 customer may get 5.0 average rating, while another driver delivering food to 5 customers may get 4.8 average rating.

As the owner of the app, you need to ensure fairness in the bonus system. To do that, you need to know: for a driver to have an average rating of exactly X , what is the minimum number of delivery k , such that there exists a scenario where the average rating given by k customers is exactly X . In addition to that, output any list of k integers within L to R such that the average of the list is exactly X .

Input

The first line contains a real number X ($0 \leq X \leq 1000$). The number X contains at most 6 digits, including both digits before and after the decimal separator (if any).

The second line contains two integers L and R ($1 \leq L \leq R \leq 1000$).

Output

If there exists a scenario where a driver can get an average rating exactly X , output in the first line, the minimum integer k representing the minimum number of customers giving the rating. In the next line, output k integers between L and R representing the rating given by the customers.

If there is no such scenario, output -1 in a single line.

| Sample Input 1 | Sample Output 1 |
|----------------|------------------|
| 8.6 1 10 | 5 10 9 10 7 7 |

Explanation of Sample 1: The average of [10, 9, 10, 7, 7] is exactly 8.6. It can be proven such that there is no valid list with four or less integers.

| Sample Input 2 | Sample Output 2 |
|----------------|-----------------|
| 9 1 10 | 1 9 |

| Sample Input 3 | Sample Output 3 |
|----------------|-----------------|
| 2.79 3 5 | -1 |



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